

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings of claims in the application:

Claim 1 (Currently amended): A replication-competent bovine adenovirus vector comprising an intron and a heterologous transgene, wherein said transgene comprises a nucleic acid sequence that is susceptible to splicing events and is inserted into the E3 region of said vector, wherein said intron is located 5' to the heterologous transgene, and wherein said vector is capable of expressing greater levels of the heterologous transgene than a comparable bovine adenovirus vector comprising the heterologous transgene and lacking an intron 5' to said heterologous transgene.

Claim 2 (Canceled)

Claim 3 (Canceled)

Claim 4 (Canceled)

Claim 5 (Previously presented): The adenovirus vector of claim 1, wherein said bovine adenovirus vector is a member of subgroup 1 bovine adenovirus or subgroup 2 bovine adenovirus.

Claim 6 (Previously presented): The adenovirus vector of claim 5, wherein said bovine adenovirus vector is BAV3.

Claim 7 (Original): The adenovirus vector of claim 1, wherein said transgene encodes a eucaryotic or prokaryotic protein.

Claim 8 (Previously presented): The adenovirus vector of claim 1 wherein said transgene encodes a protein capable of eliciting an immune response.

Claim 9 (Withdrawn): The adenovirus vector of claim 7, wherein said transgene encodes a protein from a pathogen.

Claim 10 (Previously presented): The adenovirus vector of claim 1, wherein said transgene encodes an RNA viral protein.

Claim 11 (Previously presented): The adenovirus vector of claim 1 wherein said transgene encodes a DNA viral protein.

Claim 12 (Withdrawn): The adenovirus vector of claim 9, wherein said protein is a bacterial protein.

Claim 13. (Withdrawn): The adenovirus vector of claim 9, wherein said protein is a protein from a parasite.

Claim 14 (Original): The adenovirus vector of claim 1, wherein said intron is a mammalian intron.

Claim 15 (Original): The adenovirus vector of claim 1, wherein said transgene is operably linked to a control region and said intron is located 3' to said control region.

Claim 16 (Canceled)

Claim 17 (Canceled)

Claim 18 (Original): A composition comprising a vector according to claim 1.

Claim 19 (Original): The composition of claim 18 further comprising a pharmaceutically acceptable excipient.

Claim 20 (Original): A host cell comprising the vector of claim 1.

Claim 21 (Original): A recombinant adenovirus comprising the vector of claim 1.

Claim 22 (Withdrawn): A method of preparing an adenovirus vector comprising an intron and a heterologous transgene wherein said intron is located 5' to said heterologous transgene, said method comprising the steps of obtaining an adenovirus vector and inserting a transgene and an intron into said vector, wherein said intron is inserted 5' to said heterologous transgene.

Claim 23 (Withdrawn): The method of claim 22 wherein said adenovirus vector has a deletion in a gene essential for replication.

Claim 24 (Withdrawn): The method of claim 23 wherein said gene essential for replication is E1.

Claim 25 (Withdrawn): A method of preparing an adenovirus comprising the adenovirus vector of claim 1, comprising the steps of culturing a mammalian host cell comprising the adenovirus vector of claim 1 under conditions suitable for adenovirus replication and packaging; and optionally recovering said adenovirus produced.

Claim 26 (Withdrawn): The method according to claim 25 wherein said adenovirus has a deletion in a gene essential for replication and said method further comprises the step of culturing said mammalian host cell in the presence of a helper cell line which comprises said gene essential for replication.

Claim 27 (Withdrawn): The method of claim 26 wherein said gene essential for replication is E1.

Claim 28 (Withdrawn): An immunogenic composition comprising an adenovirus vector of claim 9.

Claim 29 (Original): An immunogenic composition comprising an adenovirus vector of claim 10.

Claim 30 (Original): An immunogenic composition comprising an adenovirus vector of claim 11.

Claim 31 (Withdrawn): An immunogenic composition comprising an adenovirus vector of claim 12.

Claim 32 (Withdrawn): An immunogenic composition comprising an adenovirus vector of claim 13.

Claim 33 (Withdrawn): A composition capable of inducing an immune response in a mammalian subject, said composition comprising the immunogenic composition of claim 28.

Claim 34 (Withdrawn): The composition according to claim 33 further comprising a pharmaceutically acceptable excipient.

Claim 35 (Withdrawn): A method of treating or ameliorating the symptoms of a RNA viral infection in a mammalian host comprising administering to said host a therapeutically effective amount of the immunogenic composition of claim 29.

Claim 36 (Withdrawn): A method of treating or ameliorating the symptoms of a DNA viral infection in a mammalian host comprising administering to said host a therapeutically effective amount of the immunogenic composition of claim 30.

Claim 37 (Withdrawn): A method of treating or ameliorating the symptoms of a bacterial infection in a mammalian host comprising administering to said host a therapeutically effective amount of the immunogenic composition of claim 31.

Claim 38 (Withdrawn): A method of treating or ameliorating the symptoms of a parasitic infection in a mammalian host comprising administering to said host a therapeutically effective amount of the immunogenic composition of claim 32.

Claim 39 (Withdrawn): The adenovirus of claim 1 wherein said transgene comprises a splice junction sequence.

Claim 40 (Withdrawn): The adenovirus of claim 1 wherein said intron is a hybrid intron.

Claim 41 (New): The adenovirus vector of claim 15 wherein said control region comprises a heterologous promoter.

Claim 42 (New): The adenovirus vector of claim 1 wherein said intron comprises strong splice donor and/or splice acceptor sites.

Claim 43 (New): The adenovirus of claim 1 wherein said vector has a deletion of part or all of the E3 region.

Claim 44 (New): The adenovirus vector of claim 43 wherein said transgene is substituted for the E3 region in parallel orientation.